

ABSTRACT OF THE DISCLOSURE

In the method according to the present invention, an optical signal is input into a first optical gate to suppress a space-level noise of the optical signal. Subsequently, an optical signal output from the first optical gate is input into a second optical gate to suppress a mark-level noise of the optical signal output from the first optical gate. With this configuration, the waveform of the optical signal can be shaped without O/E conversion. For example, waveform shaping independent of the modulation rate and format of the optical signal can be performed.